

REMARKS / ARGUMENTS

The present application includes pending claims 1-46. Claims 1-23, 25-26, 28-29, and 31-46 have been rejected. Claims 24, 27, and 30 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1, 3, 5-7, 15, 17, 19-23, 28, 31-32, 34, 36-40, 42, and 44-46 have been rejected under 35 U.S.C. § 102(b) as being anticipated by USP 6456675 (“Wagner”). Claims 2, 4, 16, 18, 33, 35, 39, 41, and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of USP 7245678 (“Tanaka”). Claims 23 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of USPP 2005/0018634 (“Mantha”). Claims 8, 10, 12-14, and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of USP 7049933 (“Koerner”). Claims 9 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of Tanaka and Koerner. Claim 26 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of Mantha and Koerner.

The Applicant respectfully traverses these rejections at least based on the following remarks.

EXAMINER'S RESPONSE TO ARGUMENTS

The Examiner states the following at page 2 of the Final Office Action:

Regarding claim1, applicant argue, "Wagner does not disclose or suggest at least the limitation of "determining a signal quality metric for a plurality of signal paths, wherein one or more of said plurality of signal paths is selected based on stored information related to preceding frames, the stored information received via each of the plurality of signal paths," as recited by the Applicant in independent claim 1." However the Office respectfully disagrees. Wagner clearly teach "selecting the payload signal source based at least upon a previous quality metric corresponding to a previous payload signal source comparing unfavorably with a threshold" (see **column 18, lines 18-21**). Wagner further teach "the control and signal processing unit 208 preferably provides control of the antenna switch 202" (see **column 4, lines 50-51**) and "The control and signal processing unit 208 ... and operational data stored in volatile or nonvolatile digital storage devices or both as known in the art" (see **column 4, lines 63-65**) Wagner further teach "quality metric, Q(T), of the test antenna is updated and stored at step 504" (see **column 7, lines 39-40**). Therefore Wagner clearly teach the limitations of "one or more of said plurality of signal paths is selected based on stored information related to preceding frames". (emphasis added)

The Applicant respectfully disagrees. Wagner, at col. 18, lines 18-21, discloses that the step of selecting a payload signal source (in claim 18) includes selecting the payload signal source based upon a previous quality metric corresponding to a previous payload signal source. Wagner, at best, discloses selecting a signal source based on a single quality metric for a single previous source. There is no disclosure that a signal paths is selected based on stored

information related to preceding frames, where the stored information is received via each of the plurality of signal paths.

Wagner, at col. 4, lines 50-51 and 63-65, simply discloses that the antenna switch 202 can be controlled by the processing unit 208 (e.g., a CPU), which can utilize volatile and/or non-volatile memory.

Wagner, at col. 7, lines 39-40, describes step 504 from Fig. 5. Initially, the Applicant points out that Wagner's FIG. 5 relates to a method of selecting an antenna using packetized data transmissions, in which the test data packets are transmitted before each payload packet. The portion cited by the Examiner (col. 7, lines 39-40) simply states that the quality metric Q(T) (based on the test packet) is updated and stored. In fact, the quality metrics are being continuously updated (i.e., the most recent metric is stored for each test packet and only the most recent metric is used in the antenna determination). Ultimately, at step 512, a new payload antenna P is selected based on the current quality metric values. In this regard, the fact remains that Wagner's antenna selection (as disclosed in Fig. 5 and elsewhere) is based only on a current quality metric value for the specific antenna, and it is not based on stored information related to preceding frames, where the stored information is received via each of the plurality of signal paths.

REJECTION UNDER 35 U.S.C. § 102

I. Wagner Does Not Anticipate Claims 1, 3, 5-7, 15, 17, 19-23, 28, 31-32, 34, 36-40, 42, and 44-46

The Applicant first turns to the rejection of claims 1, 3, 5-7, 15, 17, 19-23, 28, 31-32, 34, 36-40, 42, and 44-46 under 35 U.S.C. § 102(b) as being anticipated by Wagner. With regard to the anticipation rejections under 102, MPEP 2131 states that “[a] claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” See Manual of Patent Examining Procedure (MPEP) at 2131 (internal citation omitted). Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” See *id.* (internal citation omitted).

A. Rejection of Independent Claims 1, 15, 31 and 39

With regard to the rejection of independent claim 1 under Wagner, the Applicant submits that Wagner does not disclose or suggest at least the limitation of “determining a signal quality metric for a plurality of signal paths, wherein one or more of said plurality of signal paths is selected based on stored information related to preceding frames, the stored information received via each of the plurality of signal paths,” as recited by the Applicant in independent claim 1.

The Final Office Action states the following:

Regarding claim 1, Wagner et al. teach a method for processing signals in a communication system (see abstract), the method comprising: *determining a signal quality metric for each of a plurality of signal paths (see abstract lines 1 - 3), wherein one or more of said plurality of signal paths is selected based on stored information for preceding frames, the preceding frames received via each of the plurality of signal paths (see abstract and column 18, lines 3 - 21); assigning a threshold signal quality metric for the plurality of signal paths (see abstract and column 18, lines 3 - 21); and discarding a signal path from the plurality of signal paths, if the determined signal quality metric for the signal path does not satisfy the threshold signal quality metric (see abstract and column 18, lines 3 - 21).*

See the Final Office Action at pages 4-5 (emphasis added). The Applicant respectfully disagrees. Wagner discloses that the quality of a channel for each of a plurality of receive antennas is determined by **continuously** updating quality metrics based on both test and payload data. See Wagner at Abstract. More specifically, Wagner calculates the quality metric for any given signal source by using **measurements of the currently received test and payload data**. See *id.* at col. 2, lines 33-61. This is further illustrated in Wagner's Fig. 4, which is a generalized method for selecting an antenna. Referring to Fig. 4, the quality metrics Q are being **continuously** determined and assessed for the different receiving antennas (see the continuous loop of steps 402-410, and col. 6, lines 15-50). Wagner does not utilize any stored information relating to preceding frames. In fact, as explained above, Wagner makes a continuous determination of the

quality metrics using currently received test and payload data, and does not even utilize any information relating to previously received or preceding frames.

Therefore, the Applicant maintains that Wagner does not disclose or suggest at least the limitation of “determining a signal quality metric for a plurality of signal paths, wherein one or more of said plurality of signal paths is selected based on stored information related to preceding frames, the stored information received via each of the plurality of signal paths,” as recited by the Applicant in independent claim 1.

Accordingly, independent claim 1 is not anticipated by Wagner and is allowable. Independent claims 15, 31 and 39 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 15, 31 and 39 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

B. Rejection of Dependent Claims 3, 5-7, 17, 19-23, 28, 32, 34, 36-38, 40, 42, and 44-46

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 15, 31 and 39 under 35 U.S.C. § 102(b) as being anticipated by Wagner has been overcome and requests that the rejection be withdrawn. Additionally, claims 3, 5-7, 17, 19-23, 28, 32, 34, 36-38, 40, 42, and

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44-46 depend from independent claims 1, 15, 31 and 39 and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 3, 5-7, 17, 19-23, 28, 32, 34, 36-38, 40, 42 and 44-46.

II. Rejection of Claims 2, 4, 16, 18, 33, 35, 39, 41 and 43

Claims 2, 4, 16, 18, 33, 35, 39, 41 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of Tanaka. Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 15, 31 and 39 under 35 U.S.C. § 102(b) as being anticipated by Wagner has been overcome and requests that the rejection be withdrawn. Additionally, since the additional cited reference (Tanaka) does not overcome the deficiencies of Wagner, claims 2, 4, 16, 18, 33, 35, 39, 41 and 43 depend from independent claims 1, 15, 31 and 39, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2, 4, 16, 18, 33, 35, 39, 41 and 43.

III. Rejection of Claims 23 and 29

Claims 23 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of Mantha. Based on at least the foregoing, the Applicant believes the rejection of independent claims 1 and 15 under 35 U.S.C. § 102(b) as being anticipated by Wagner has been overcome and requests that the rejection be withdrawn. Additionally, since the additional cited reference (Mantha) does not overcome the deficiencies of Wagner, claims 23 and 29 depend from independent claims 1 and 15, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 23 and 29.

IV. Rejection of Claims 8, 10, 12-14, and 25

Claims 8, 10, 12-14, and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of USP 7049933 (“Koerner”). Independent claim 8 is similar in many respects to the method disclosed in independent claim 1. Furthermore, Koerner does not overcome the deficiency of Wagner as it relates to the above argument for the allowability of claim 1. Therefore, the Applicant submits that independent claim 8 is also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

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Additionally, since the additional cited reference (Koerner) does not overcome the deficiencies of Wagner, claims 10, 12-14, and 25 depend from independent claim 8, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 8, 10, 12-14, and 25.

V. Rejection of Claims 9 and 11

Claims 9 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of Tanaka and Koerner. Based on at least the foregoing, the Applicant believes the rejection of independent claim 8 has been overcome and requests that the rejection be withdrawn. Additionally, since the additional cited references (Tanaka and Koerner) do not overcome the deficiencies of Wagner, claims 9 and 11 depend from independent claim 8, and are, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 9 and 11.

VI. Rejection of Claim 26

Claim 26 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Wagner in view of Mantha and Koerner. Based on at least the foregoing, the

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Applicant believes the rejection of independent claim 8 has been overcome and requests that the rejection be withdrawn. Additionally, since the additional cited references (Mantha and Koerner) do not overcome the deficiencies of Wagner, claim 26 depends from independent claim 8, and is, consequently, also respectfully submitted to be allowable.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 8.

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CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-46 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Attorney at (312) 775-8176.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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